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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,042	08/02/2001	Yu Xihu		7629

7590

08/08/2003

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EXAMINER

RAMSEY, KENNETH J

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 08/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/921,042

Applicant(s)

XIHU, YU

Examiner

Kenneth J. Ramsey

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Case admits of Drawings***

The examiner notes that drawings have not been filed. However, drawings appear necessary to enable a clear understanding of the claimed subject matter. Accordingly drawings are hereby required. The drawings must be limited to that disclosure made apparent by the specification and claims as originally filed since no new matter may be introduced by the drawings.

### ***Indefiniteness Rejections***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "that is, ..." claim 1, lines 9-11, is indefinite since it is not clear that this constitutes a limitation of the clause (1) or not. Claim 1, line 15, the phrase "where the wire of anode is close to anode" is confusing. Claim 1, lines 15-16, it is not clear what constitutes a "heat-preservation sealed enclosure". Claim 1, line 17 "the lampshade" has no antecedent. Claim 2, lines 3-5, and claim 3, lines 3-5, the "aforementioned (1) Changing the structure of ..." has no clear antecedent since the entire clause (1) also includes "Changing the relative positions". Also, the term "refers to" in claim 2, line 4 or claim 3, line 4, should be "comprises". Claim 2, line 6, and claim 3, line 6, "can be" is objected as not being a positive and clear recitation of the process. Claim 4, line 5 "only to be co-used" should be -is used in

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combination with--, and line 7, "anode and (5) according to " should be --anode, and further comprising". Claims 2 and 3, it is not clear what is a "short stem with an L-shape metal protection ring" or a "flat stem shape with an oval shape metal protection ring".

### ***Non-enabling Disclosure***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification and claims is objected as failing to constitute an enabling disclosure of the following claimed subject matter: assembling additionally a heat preservation sealed enclosure with a high degree of transparency under the lampshade of a DC fluorescent lamp tube (claim 3); or forming a three-spiral filament in short stem shape with an L-shape metal protection ring (claim 2); or forming a three spiral filament in a flat stem shape with an oval shaped metal protection ring (claim 3).

Claims 2-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. See the above objection to the specification and claims.

### ***Prior Art Rejections***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

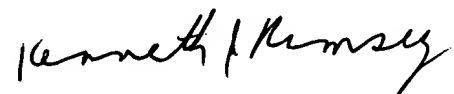
Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Akutsu et al, 4,983,888. This patent teaches the placement of a mercury-absorbed material (an amalgam insert) at the anode as claimed in claim 1, lines 13-15. Since the scope of claim 1 is drawn to thoroughly eliminating "Electrophoresis effects" by "solely and/or simultaneously changing the following structures of the lamp tube and does not require each of the structural changes itemized and since the change by Akutsu is deemed to eliminate electrophoresis effects, the claim is anticipated.

#### ***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gallo et al, 4,005,332, discloses the step of forming a cold spot at the anode end of a DC fluorescent tube to provide uniform light emission. Gong, 5,581,161, provides a small AC drive current in a DC fluorescent lamp to cancel the electrophoresis effect. Strok et al, 5,336,968 employs various methods to keep the cathode of a DC lamp 100 degrees C hotter than the anode. Ruby 5,027,034, teaches switching the direction of the DC current to prevent an excessive electrophoresis effect. Lake 3,617,792, overcomes the electrophoresis effect by provide a reverse gas flow between an outer lamp wall and an inner fluorescent coated glass tube.

#### ***Conclusion***

Any inquiry concerning this communication should be directed to examiner Kenneth Ramsey at telephone number 703-308-2324.



**KENNETH J. RAMSEY  
PRIMARY EXAMINER**